

Systems and methods are described for processing of laser capture microdissection (LCM) samples. A biological sample processing system includes a laminated film sample processing device including a reaction chamber mated with a biological sample carrier to form a fluidic circuit. A multiple step fluidic device includes an LCM transfer film and a surface that is spaced apart from the transfer film so as to define a fluid volume. The reaction buffer can be removed through an exit port, or stop junction, in the surface.

Advantages of the systems and methods include facilitating subsequent processing reducing the volume of reagents and enhancing economy. For instance, the reaction buffer can be conveniently removed away from the LCM transfer film.

[illegible]